

09/937363

JC09 Rec'd PCT/PTO 21 SEP 2001
Attorney Docket No.: B-7062

In re Application of
Christian Wunderlich, Petra Backus, and Hartmut Mahlkow
National Phase Application in the United States corresponding to
International Application No.: PCT/DE01/01232
International Filing Date: 28 March 2001
Priority Date Claimed: 04 April 2000
For: PROCESS FOR THE PRODUCTION OF SOLDERABLE AND
FUNCTIONAL SURFACES ON CIRCUIT CARRIERS

Honorable Commissioner of
Patents and Trademarks
Washington, DC 20231

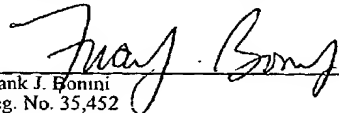
SIR:

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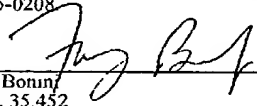
Date

9/21/01


Frank J. Bonini
Reg. No. 35,452

AUTHORIZATION TO CHARGE DEPOSIT ACCOUNT

The Commissioner is hereby authorized to charge any additional fees which may be required by this paper and during the pendency of this application to Account No. 05-0208


Frank J. Bonini
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PRELIMINARY AMENDMENT

This Amendment is made to the claims, as follows:

3. (Amended) Process according to [one of the preceding claims]
Claim 1, wherein the at least one solderable surface is formed by depositing at least one solderable layer of metal by means of chemical reduction or cementation.
6. (Amended) Process according to [one of the preceding claims]
Claim 1, wherein the at least one bondable surface is produced to serve as a functional surface.

7. (Amended) Process according to [one of the preceding claims] Claim 1, wherein at least one functional surface is made of at least one metal, selected from the group comprising gold, palladium, silver and their alloys.
9. (Amended) Process according to [one of the preceding claims] Claim 1, wherein, for the purpose of producing the at least one functional surface, a layer comprising nickel is deposited first and a layer of gold is applied there onto.
10. (Amended) Process according to [one of the preceding claims] Claim 1, wherein the at least one functional surface is formed by the deposition of at least one functional layer by means of chemical reduction or cementation.
11. (Amended) Process according to [one of the preceding claims] Claim 1, wherein the covering mask is formed by performing the following steps:
 - (c1) application of a layer of photoresist,
 - (c2) exposure of the layer of photoresist with a model of the mask in such a manner that the function regions can be led bare in a subsequent development stage and
 - (c3) development of the exposed layer of photoresist.
13. (Amended) Process according to [one of the preceding claims] Claim 1, wherein the circuit carriers provided with the copper surfaces are provided with a solder resist mask prior to carrying out step (b) of the procedure, the solder regions and the function regions remaining bare.

Please add the following new claims: --

16. Process according to Claim 2, wherein the at least one solderable surface is formed by depositing at least one solderable layer of metal by means of chemical reduction for cementation.
17. Process of Claim 2, wherein the at least one bondable surface is produced to serve as a functional surface.
18. Process according to Claim 2, wherein the at least one functional surface is made of at least one metal, selected from the group comprising gold, palladium, silver and their alloys.
19. Process according to Claim 3, wherein, for the purpose of producing the at least one functional surface, a layer comprising nickel is deposited first and a layer of gold is applied there onto.
20. Process according to Claim 1, the at least one solderable surface is made from at least one metal selected from the group comprising tin, silver, bismuth, palladium and their alloys; wherein the at least one solderable surface is formed by depositing at least one solderable layer of metal by means of chemical reduction or cementation; wherein the at least one solderable layer of metal is removed again prior to carrying out stage (d) of the process in the function regions; wherein the at least one solderable layer of metal is removed by means of an acid etch solution; wherein the at least one bondable surface is produced to serve as a functional surface; wherein at least one functional surface is made of at least one metal, selected from the group comprising gold, palladium, silver and their alloys;

wherein, for the purpose of producing the at least one functional surface, a layer comprising nickel is deposited first and a layer of gold is applied there onto; wherein the at least one functional surface is formed by the deposition of at least one functional layer by means of chemical reduction or cementation; wherein the covering mask is formed by performing the following steps:

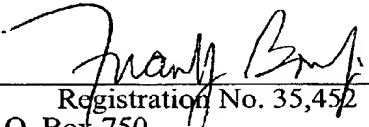
- (c1) application of a layer of photoresist,
- (c2) exposure of the layer of photoresist with a model of the mask in such a manner that the function regions can be led bare in a subsequent development stage and
- (c3) development of the exposed layer of photoresist. --

REMARKS

Applicant respectfully requests entry of the foregoing preliminary amendment which is being filed with the application.

The Commissioner is authorized to charge any additional fees which may be required to Patent Office Deposit Account No. 05-0208.

Respectfully submitted,
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ABSTRACT

Process for the production of at least one solderable surface in selected
solder regions and of at least one functional surface in function regions
differing from the solder regions on circuit carriers provided as well as of
corresponding circuit carriers.